

REMARKS

2 Claims 43-44 were previously withdrawn in response to an earlier
3 restriction requirement.

4 Claims 1-42 remain in this application.

5 Applicants' previous arguments were persuasive over the Office's previous
6 cited art, and the Office has raised new grounds of objection based on new art that
7 is considered for the first time in this response, namely U.S. Patent 6,557,042 to
8 He et al.

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10 **35 U.S.C. §103**

11 **Claims 1-9**

12 Claims 1-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over
13 Atsushi Ono et al, "A Flexible Content-Based Image Retrieval System with
14 Combined Scene Description Keyword", page 201-208, June 17-23, 1996,
15 Multimedia Computing and System (hereinafter "Ono) in view of U.S. Patent
16 6,557,042 to He et al (hereinafter "He"). Applicants respectfully traverse the
17 rejection.

18 **Independent claim 1 recites:**

19 **A method comprising:**

20 identifying, in response to a search query, first multimedia objects
21 having an associated keyword that matches a keyword in the search query and second multimedia objects that have content features similar to those of
22 the first multimedia objects;

23 presenting the first and second multimedia objects to a user;

24 monitoring feedback from the user as to which of the first and second multimedia objects are relevant to the search query; and

1 annotating one or more of the multimedia objects, which are deemed
2 relevant by the user, with the keyword.

3 The combination of Ono and He fails to teach or suggest the method of
4 claim 1. Ono describes searching for images based on keywords. The image
5 search is based exclusively on keywords associated with the images. Ono relies on
6 automated keyword extraction based on scene or image recognition. In other
7 words, based on a scene or image recognition, a keyword associated with the
8 image. The extracted keywords are then used to retrieve images. All multimedia
9 objects (images) in Ono are identified by particular keywords associated with the
10 multimedia objects (images). In Figs. 4 and 5 of Ono, for example, the images are
11 retrieved using two unique keywords associated with each image. "The keyword
12 enables us to retrieve images by not only referring to the meaning of the image but
13 also using attributes such as location, color, shape of segments, and relation
14 between segments or objects". Ono at page 202, left col., lines 12-15.

15 Because Ono exclusively relies on keywords, Ono does not teach or suggest
16 "identifying, in response to a search query, first multimedia objects having an
17 associated keyword that matches a keyword in the search query and second
18 multimedia objects that have content features similar to those of the first
19 multimedia objects". The Examiner cites Ono at page 202, left col., lines 15-22 as
20 teaching this element; however, this section of Ono recites "[a]nd when retrieving,
21 the use of a recognition model which is used to give the keyword can offset the
22 incompleteness of the present image recognition technique and improve retrieval".
23 Ono shows that retrieving (see section 3 of Ono) and the recognition model (see
24 section 4 of Ono) are based on keywords. Ono does not teach or suggest
25 "identifying, in response to a search query ... second multimedia objects that have

1 content features similar to those of the first multimedia objects" as recited in the
2 claim, since the identifying or retrieving as disclosed in Ono is based exclusively
3 on keywords.

4 The Examiner also cites Ono page 202, left col., lines 15-22 as teaching the
5 element of "presenting the first and second multimedia objects to a user." As
6 discussed the second images (multimedia objects) are retrieved (i.e., identified)
7 based on similar content features, and Ono relies on retrieving based on keywords.
8 Therefore such second multimedia objects are not presented to the user.

9 The Examiner relies on He as teaching the elements of "monitoring
10 feedback from the user as to which of the first and second multimedia objects are
11 relevant to the search query" and "annotating one or more of the multimedia
12 objects, which are deemed relevant by the user, with the keyword". The Examiner
13 particularly argues that:

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15 He teaches the annotating process using button 332 of Fig 5
16 excepting (sic, except) for annotating the multimedia objects based
17 on eh the feedback. He teaches "there are may be a relationship
18 defined between a marketing group and an engineering group, such
19 that user feedback from a user in the marketing group also modifies
20 the corresponding segment score in the engineering group. This
21 modification may the same (e.g. increase both scores by two for
22 positive feedback), or different (e.g., for positive feedback increase
23 the segment score in the user's group by two and increase the
24 segment score in the related group by one" (col. 9, lines 56-64). This
25 teaches the increasing the score by two when there are positive
feedbacks from the user means annotating the segment by two of the
marketing and engineering group. Therefore, it would have been
obvious to one ordinary skill in the art at the time of the invention
was made to include the user's feedback to modify the scores to
annotate the marketing and engineering group to the multimedia
object segment to allow the retrieval of the same segment that
relevant to these marketing and engineering.

1 The Examiner does not discuss how He teaches or suggests the element of
2 "monitoring feedback from the user as to which of the first and second images are
3 relevant to the query", but limits his discussion as to He's user feedback regarding
4 modifying scores from marketing and engineering groups.

5 He does not teach or suggest "identifying, in response to a search query ...
6 second multimedia objects that have content features similar to those of the first
7 multimedia objects." Since neither Ono nor He suggest the ability for "identifying
8 in response to a search query ... second multimedia objects that have content
9 features similar to those of the first multimedia objects", Claim 1 is allowable over
10 the cited combination. Applicants respectfully request that the §103 rejection of
11 claim 1 be withdrawn.

12 **Dependent claims 2-9** are allowable by virtue of their dependency on base
13 claim 1. Applicants respectfully request that the §103 rejection of claims 2-9 be
14 withdrawn.

15 **Claims 10-11, 13-26, 27, 29-34, and 37-42**

16 Claims 10-11, 13-26, 28-34, and 37-42 are rejected under 35 U.S.C. §103(a)
17 as being unpatentable over He. Applicants respectfully traverse the rejection.

18 **Independent claim 10** recites:

19 A method comprising:

20 iteratively retrieving multimedia objects from a database and
21 monitoring feedback from a user as to whether the multimedia objects are
22 relevant to a keyword in a search query; and

23 annotating the multimedia objects based on the user's feedback, with
24 the keyword.

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1 He describes a system that provides multimedia content to users as well as
2 summaries of the multimedia content. The summaries are generated to include
3 portions of the multimedia content that other (previous) users may have found to
4 be most interesting as identified through feedback by the other (previous) users.
5 He, col. 2 lines 20-27.

6 The feedback described in He involves the use of "scores" attached to
7 particular segments of the multimedia objects. The scores may be adjusted up or
8 down by the users. Summaries show segments with the highest scores. He, col. 2,
9 lines 42-52.

10 Annotations may be provided to the multimedia content where annotations
11 include audio, text, video, etc. and generally provide a user's input such as a
12 comment, question, or elaboration as to the multimedia content. Annotations
13 typically correspond to a particularly temporal (time) location or range. He
14 describes that these annotations are stored in a separate annotation server. A user
15 communicates directly with the annotation server to add or retrieve annotations.
16 He col. 3, line 67 to col. 4, line 16.

17 Claim 10 recites "iteratively retrieving multimedia objects from a database
18 and monitoring feedback from a user as to whether the multimedia objects are
19 relevant to a keyword in a search query".

20 The feedback described in He involves the use of "scores" that are attached
21 by users to particular segments of the multimedia objects. The scores may be
22 adjusted up or down by the users. He does not teach or suggest that such scores
23 that are provided as user feedback are relevant to a keyword in a search query for
24 multimedia objects.

1 The Examiner argues that He teaches "monitoring feedback from a user as
2 to whether the multimedia objects are relevant to a keyword in a search query".

3 The feedback taught in He is directed to users adjusting scores assigned to
4 segments of multimedia content. The scores of the user feedback in He are not
5 directed keywords used in a search query for multimedia objects.

6 Claim 10 further recites "annotating the multimedia objects based on the
7 user's feedback, with the keyword".

8 He describes that multimedia content that may be annotated include audio,
9 text, video, etc. and generally provide a user's input such as a comment, question,
10 or elaboration as to the multimedia content. Annotations may also correspond to a
11 particularly temporal (time) location or range. The user communicates directly
12 with an annotation server, such that feedback provided by the user in the form of
13 scores is separate from the annotation.

14 The Examiner argues that He teaches "annotating the multimedia objects
15 based on the user's feedback, with the keyword".

16 The annotation shown in He is directed in general to users providing a note
17 (e.g., question, comment, elaboration, etc.) to multimedia content. Annotation
18 with a keyword is not taught or suggested by He. Furthermore, since the user in
19 He communicates directly with an annotation server, the annotation described in
20 He does not depend or is related to the feedback of scores that are provided by the
21 user. In other words, the annotation of He is not based on the user's feedback.

22 Claim 10 is allowable over the cited reference. Applicants respectfully
23 request that the §103 rejection of claim 10 be withdrawn.

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1 **Dependent claims 11, 13-17 are allowable by virtue of their dependency on**
2 **base claim 10. Applicants respectfully request that the §103 rejection of claims 11,**
3 **13-17 be withdrawn.**

4 **Independent claim 18 recites:**

5 **A method comprising:**

6 **retrieving multimedia objects according to a content-based retrieval**
7 **process;**

8 **presenting the multimedia objects to a user;**

9 **monitoring feedback from the user as to which of the multimedia**
10 **objects are relevant; and**

11 **annotating one or more of the multimedia objects based on the user's**
12 **feedback, with a keyword.**

13 He does not teach or suggest the element of "monitoring feedback from the
14 user as to which of the multimedia objects are relevant". As discussed above in
15 support of claim 10, the feedback taught in He is directed to adjusting a score to a
16 segment of a multimedia content.

17 He does not teach or suggest the element of "annotating one or more of the
18 multimedia objects based on the user's feedback, with a keyword". As discussed
19 above in support of claim 10, the feedback of He is not directed to the annotation
20 of He. In other words the feedback and the annotation shown in He are separate
21 from another, and the annotation does not make use of the feedback. Furthermore,
22 as discussed above, He does not teach or suggest the use of a keyword in
23 annotation.

24 Claim 18 is allowable over the cited reference. Applicants respectfully
25 request that the §103 rejection of claim 18 be withdrawn.

1 **Dependent claims 19-24** are allowable by virtue of their dependency on
2 base claim 10. Applicants respectfully request that the §103 rejection of claims
3 19-24 be withdrawn.

4 **Independent claim 25** recites:

5 A method comprising:

6 maintaining associations between keywords and multimedia objects,
7 the associations being weighted to indicate how relevant the keywords are
8 to the multimedia objects;

9 retrieving a set of one or more multimedia objects for presentation to
a user;

10 monitoring feedback from the user as to which of the multimedia
11 objects are relevant; and

12 adjusting the weights of the associations based on the user's
13 feedback.

14 He does not teach or suggest the element of "maintaining associations
15 between keywords and multimedia objects, the associations being weighted to
16 indicate how relevant the keywords are to the multimedia objects".

17 The Examiner argues that one group of users such a marketing group may
18 modify segments scores of another user or group of users such as an engineering
19 group. Applicants do not disagree with the Examiner's interpretation of He;
20 however, Applicants disagree with the Examiner that this association between the
21 groups (users) corresponds to multimedia objects and keywords. As discussed He
22 shows that segments of multimedia content may be provided a score that as the
23 Examiner has pointed may be changed by one or more groups (users). He does not
24 teach or suggest associations between keywords and multimedia objects. Weights
25 are taught by He's scores associated with segments of multimedia content;

1 however, He does not teach or suggest that weights (scores) may be assigned to
2 keywords as to their relevance to multimedia objects.

3 Claim 25 is allowable over the cited reference. Applicants respectfully
4 request that the §103 rejection of claim 25 be withdrawn.

5 Dependent claims 26 and 28-31 are allowable by virtue of their
6 dependency on base claim 25. Applicants respectfully request that the §103
7 rejection of claims 26 and 28-31 be withdrawn.

8 **Independent claim 32 recites:**

9 A system comprising:

10 an information retrieval unit to retrieve multimedia objects from a
11 database based on a search query;

12 a relevance feedback unit to capture a user's feedback as to whether
13 the multimedia objects are relevant to the search query; and

14 an annotation unit to annotate, with a keyword, the multimedia
15 objects based on the user's feedback.

16 As discussed above, the feedback taught in He is directed to providing a
17 score as to segments of multimedia content. He does not teach or suggest that such
18 feedback be used as to relevance of the segments of the multimedia content
19 (multimedia content) to a search query. Therefore He does not teach or suggest the
20 element of "a relevance feedback unit to capture a user's feedback as to whether
21 the multimedia objects are relevant to the search query".

22 Furthermore, as discussed above, the feedback of He is not directed to the
23 annotation of He. The feedback and the annotation shown in He are separate from
24 another, and the annotation does not make use of the feedback. Therefore He does
25 not teach or suggest the element of "an annotation unit to annotate, with a

1 keyword, the multimedia objects based on the user's feedback". Also as discussed
2 above, He does not teach or suggest the use of a keyword in annotation.

3 Claim 25 is allowable over the cited reference. Applicants respectfully
4 request that the §103 rejection of claim 25 be withdrawn.

5 **Dependent claims 33-34 and 37-42** are allowable by virtue of their
6 dependency on base claim 32. Applicants respectfully request that the §103
7 rejection of claims 33-34 and 37-42 be withdrawn.

8 **Claims 12, 27, and 35-36**

9 Claims 12, 27 and 35-36 are rejected under 35 U.S.C. §103(a) as being
10 unpatentable over He in view of Ono. Applicants respectfully traverse the
11 rejection.

12 **Dependent claim 12** depends from claim 10 and hence incorporates the
13 features of claim 10. As such claim 12 requires "iteratively retrieving multimedia
14 objects from a database and monitoring feedback from a user as to whether the
15 multimedia objects are relevant to a keyword in a search query; and annotating the
16 multimedia objects based on the user's feedback, with the keyword".

17 Ono is cited for teaching "the searching utilizing both keywords and
18 features". However, Ono provides no assistance in light of He as to the recited
19 method of claim 10 from which claim 12 depends.

20 Applicants assert the arguments in support of claim 10. Applicants
21 respectfully request that the §103 rejection of claim 12 be withdrawn.

22 **Dependent claims 35 and 36** depend from claim 32 and hence incorporate
23 the features of claim 32. As such claims 35 and 36 requires "a relevance feedback
24 unit to capture a user's feedback as to whether the multimedia objects are relevant

1 to the search query; and an annotation unit to annotate, with a keyword, the
2 multimedia objects based on the user's feedback".

3 Ono is cited for teaching "the searching utilizing both keywords and
4 features". However, Ono provides no assistance in light of He as to the recited
5 method of claim 32 from which claims 35 and 36 depend.

6 Applicants assert the arguments in support of claim 10. Applicants
7 respectfully request that the §103 rejection of claims 35 and 36 be withdrawn.

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CONCLUSION

All pending claims 1-42 are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the subject application. If any issues remain that prevent issuance of this application, the Examiner is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

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